

# Calcined hydrotalcite(s) - used as catalysts for ethoxylation or propoxylation of ester(s) of opt. hydroxy-substd. fatty acids and mono-alkanol(s) or poly:ol(s)

Patent Number : DE3914131

International patents classification : C07C-067/29 C07C-069/28 C07C-069/30 B01J-021/10 B01J-027/236 C07C-069/00 C07C-069/24 C07C-069/52 C11C-003/10 C07B-061/00

## • Abstract :

DE3914131 A Calcined hydrotalcites (I) are used as catalysts for the ethoxylation and propoxylation of esters of opt. OH-substd. 8-22C fatty acids (II) and 1-22C mono-alkanols and of full or partial esters of (II) and 2-12C polyols contg. 2-6 OH gps. Pref. esters are 1-4C alkyl esters of satd. or unsatd. fatty acids or glycerides of opt. monohydroxy-substd, satd. or unsatd. fatty acids; before calcination, (I) has the formula  $MgxAl(OH)y(CO_3)z.nH_2O$  (with  $x = 1-5$  pref. 1.8-3.1;  $y =$  above  $z$ ;  $(y + 0.5z) = 2x + 3$  and  $n = 0-10$ ); (I) is calcined at 400-600 deg.C; amt. of (I) used is 0.1-2 wt.% w.r.t. final alkoxylation prod. ADVANTAGE - (I) enable prodn. of high yields of polyalkoxylation prods. with a short reaction time, and give a narrower product bandwidth or homologue distribution than prior-art NaOMe catalysts; (I) are easily incorporated into the reaction mixt. and can be removed easily after the reaction or left in situ during subsequent stages. (Dwg. 0/0) EP-474644 B The use of a calcined hydrotalcite as catalyst for the ethoxylation or propoxylation of fatty acid esters selected from the group formed by esters of optionally hydroxy-substituted fatty acids having 8 to 22 carbon atoms with monoalkanols having 1 to 22 carbon atoms, and by partial esters and full esters of optionally hydroxy-substituted fatty acids having 8 to 22 carbon atoms with polyols having 2 to 12 carbon atoms and 2 to 6 hydroxyl groups.

## • Publication data :

Patent Family : DE3914131 A 19901031 DW1990-45 \* AP:  
1989DE-3914131 19890428

**WO9013533** A 19901115 DW1990-48 DSNW:

AU BR CA JP KR NO US DSRW: AT BE CH DE DK ES FR GB  
IT LU NL SE  
PT-93911 A 19901120 DW1990-50  
AU9054226 A 19901129 DW1991-09  
ZA9003256 A 19910130 DW1991-10 AP: 1990ZA-0003256  
19900430  
EP-474644 A 19920318 DW1992-12 22p AP: 1990EP-0906195  
19900419 DSR: DE FR IT  
JP04505449 W 19920924 DW1992-45 C07C-069/30 5p FD:  
Based on WO9013533 AP: 1990JP-0505978 19900419; 1990WO-EP00630 19900419  
EP-474644 B1 19940928 DW1994-37 C07C-067/29 Ger 7p FD:  
Based on WO9013533 AP: 1990EP-0906195 19900419; 1990WO-EP00630 19900419 DSR: DE FR IT  
DE59007350 G 19941103 DW1994-43 C07C-067/29 FD: Based  
on EP-474644; Based on WO9013533 AP: 1990DE-0507350  
19900419; 1990EP-0906195 19900419; 1990WO-EP00630  
19900419  
JP2636079 B2 19970730 DW1997-35 C07C-069/28 4p FD:  
Previous Publ. JP4505449; Based on WO9013533 AP: 1990JP-0505978 19900419; 1990WO-EP00630 19900419  
Priority n° : 1989DE-3914131 19890428

Covered countries : 21

Publications count : 10

Cited patents : AU-234177; CA-653569; JP54160529;  
SU1145047; US4157923; EP-339426; FR2251542; JP56036431  
01Jnl.Ref

## • Patentee & Inventor(s) :

Patent assignee : (HENK ) HENKEL KGAA  
Inventor(s) : BEHLER A; FRIEDRICH K; HERRMANN K;  
RATHS HC; RATHS H

## • Accession codes :

Accession N° : 1990-336011 [45]  
Sec. Acc. n° CPI : C1990-145822

## • Derwent codes :

Manual code : CPI: D10-B02 E10-E04  
E34-B E34-C J04-E04  
Derwent Classes : D23 E17 J04

## • Update codes :

Basic update code : 1990-45  
Equiv. update code : 1990-48; 1990-50;  
1991-09; 1991-10; 1992-12; 1992-45; 1994-37; 1994-43; 1997-35